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ABSTRACT

The papers presented in this annual reading conference report focus on various aspects of the topic, "The Reading Environment." The opening address advocates establishing reading programs that correspond to the developmental stages of individual children--programs that consider the needs of the whole child. The other papers delivered at the conference include a discussion of three environments--the classroom, the world outside, and that within the individual child; classroom exercises for developing critical readers; suggestions for using media in the reading classroom; answers to specific questions regarding the effectiveness of team teaching in the reading classroom; an examination of the language, vocabulary, and abstractions involved in simple mathematics story problems; and an analysis of the reading instruction programs in certain foreign countries. (MAI)

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of the
1978
Eighth Annual
Reading Conference
June 15-16

THE READING ENVIRONMENT

Studies in Curriculum Development No. 2, 1979

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CURRICULUM RESEARCH
AND DEVELOPMENT CENTER
SCHOOL OF EDUCATION,
INDIANA STATE UNIVERSITY
TERRE HAUTE

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PREFACE

June 21-22 of 1971 saw the first sessions of what has now become our annual reading conference here at Indiana State University. For each of the eight conferences to date we have shared the responsibility for planning the conferences and the proceedings.

Our attendance at the conference has grown to well over three hundred interested teachers, students, administrators, and friends. The total attendance for our sessions exceeds seven hundred. We have provided, on a very limited budget and at various times, free coffee, doughnuts, luncheons, receptions, and handouts. Planning our next conference is the first order of business after each conference is completed. In these endeavors, we have enjoyed the support of our Department Chairperson, William G. McCarthy; the Dean of Academic Services and Special Programs, Harriet D. Darrow; and, of course, the full support services of the Bureau of Conferences and Special Events, so ably directed by Mrs. V. Pauline Braunschweiger.

Students have suggested speakers to us from time to time. Friends who have attended other conferences often suggest suitable speakers. We have been very fortunate to engage speakers who come from long distances to share their ideas with us. In many cases our remuneration for these people is barely enough to cover their expenses. We have asked our afternoon speakers to donate their time and efforts since our budget does not allow us to pay them. We have resisted charging a fee for this conference since we deem it a service of the university to upgrade the skills and knowledge of our dedicated reading teachers all over the state of Indiana. Even the modest charge for these proceedings does not cover their cost.

This year's conference featured the theme of "The Reading Environment." Within these pages are the remarks of our speakers. We hope that the ideas presented in the conference will be translated into action that will improve every reader's teaching of reading. A close look at these articles reveals various viewpoints about the reading environment and a common concern for children and for improving instruction.

We invite our readers to our Ninth Annual Reading Conference which will be held June 14, 1979.

Vanita Gibbs
David C. Waterman

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THE READING ENVIRONMENT

PROGRAM OF

EIGHTH ANNUAL READING CONFERENCE

THURSDAY, June 15, 1978

9:30 - 11:00 a.m. Hulman Civic University Center - Room C

Presiding:
David C. Waterman, Co-chairperson

Welcome:
Harriet D. Darrow, Dean
Summer and Evening Sessions
Indiana State University

Introduction of Speaker:
Vanita Gibbs, Co-chairperson

Speaker:
Malcolm Douglass
"Beyond Literacy: Having Our Cake and Eating It Too"

1:30 - 2:20 p.m.

Room A - Lawrence Reck
"The Visual Environment for Literacy"

Room B - David C. Waterman
"Outside, Inside, Right Side Up!"

Room C - Ann W. Ely
"Developing Critical Readers"

2:30 - 3:20 p.m.

Room A - Lawrence Reck
"The Visual Environment for Literacy"

Room B - Margaret Liebermann and Marian Rutledge
"Questions You Have Always Wanted To Ask About Team Teaching--
And Some Answers"

Room C - Walter Sanders
"Mathematics, The Real World, and Language"

FRIDAY, June 16, 1978

9:30 - 11:00 a.m. Hulman Civic University Center - Room C

Speaker:
Malcolm P. Douglass
"Reading Around the World"

BEYOND LITERACY:
HAVING OUR CAKE AND EATING IT, TOO*

Malcolm P. Douglass

This morning I want to suggest to you that the problem of reading is not a problem of simply achieving literacy; we have that within our grasp, even if we do not recognize that fact. The problem, rather, is plotting a course which will take us beyond literacy, into a world in which our concerns have to do with the quality of life, and how reading can enhance that quality, rather than merely with the concerns of quantity.

How can I say that achieving literacy is not a problem? I am not referring to the obvious but often overlooked fact that a very large proportion of our children learn to read and to read very well. Roger Farr has recently reminded us of this by publishing information about a study he conducted which shows that children today are reading at levels above those of youngsters a few years ago.[1] Despite the doom and gloom-sayers, we are not becoming a nation of illiterates. Library circulations are healthy and growing. Book sales are strong and are evidently getting stronger. All the indicators suggest quite the contrary. Nor am I unaware of the fact that a sizeable number remain who are, as the saying goes, "functionally illiterate." By that we mean to refer to those who can read all right, but who lack sufficient proficiency to conduct the daily business of reading print which this literate society requires. Some would put that at a level of being able to take a test to secure a driver's license (where such is required). Others, the ability to complete an application for a job. Whatever the competence, there is certainly no question that we still have a large number--the U.S. Office of Education a few years ago set it at 25 percent--who are in trouble whenever they encounter print on a page.

Nor would I deny the importance or significance of the existence of this sizeable chunk of our population, a population which is not equally affected since reading disability occurs with much greater frequency among those with lower socio-economic status and members of minority groups, and (in this society at least) among males than females. Whatever that figure, it is infinitely higher here than in any other country in the world, at least in those countries where universal literacy is considered to be an achievable objective. That includes English speaking countries, countries where other languages are the native tongue, and countries in which there is the use of two or more languages, one of

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Malcolm Douglass is a Professor at the Claremont Graduate School and directs the Claremont Reading Conference.

*Presented at the 8th Annual Reading Conference, Indiana State University, June 15, 1978. Not to be reproduced without permission of the author.

which may be English. It behooves us to act in appropriate ways to rid ourselves of this cancer which debilitates such a large number of Americans in so many important ways. But this form of illiteracy is not something we have to live with.

What I am saying is that we now know enough about the nature of reading behavior that not only is universal literacy clearly within our grasp, it is time for us to plan more carefully how we can go beyond that point in utilizing this magnificent tool which all humans possess for improving the quality of our lives both individually and collectively. We have suspected this potential for at least 80 or 90 years. Let me refer you to a book written by Edmund Burke Huey, first published in 1908, titled *The Psychology and Pedagogy of Reading*[2] or to one written eight years later, in 1916 by Kerfoot called *How We Read*,[3] for some early examples. Or certainly more recently, the writings of Peter Spencer, who summed up the naturalistic view of reading behavior in a book called *Reading Reading* in 1970.[4] But it has only been within the past decade, or perhaps a little more, that research into child language has opened up a floodgate of knowledge and information about the progress of development of this most remarkable ability. From it has flowed concrete ideas about the kinds of environments, and the conditions governing learning, which are wellsprings for planning our teaching. And these are some of the things I would like to discuss with you today.

Of course, we still don't know beans about how children learn to speak and to listen intelligently, and we know even less about the course of development youngsters take in learning to read and to write (the counterparts of listening and speaking in the house of verbal language abilities). But we do know a great deal about the growth and development of language abilities with respect to performance or competence. However, much of language competence (whatever its form) cannot be directly observed. Whenever we see a child reading, or any reader reading, for example, we see only the tip of the iceberg, and the least important part of it at that. The important part underneath the "surface" of our observation consists of dimensions which we are virtually unequipped to sound. As Walter Loban put it recently when he addressed the Claremont Reading Conference, what goes on between the eyes and the brain is infinitely more important than what goes on between the page and the eyes.[5]

But from an analysis of what we observe of performance or competence as children grow and develop their powers to think with the four verbal language abilities, these tools for representing (re-presenting) experience, we can now see with much greater clarity than ever before the conditions under which language competence is most likely to be evoked. We should remember, though, that representations of experience take many other forms, and these are all interrelated with verbal language as well. Let me speak of a number of the more important of these discoveries which I believe clearly indicate to us that the problem of reading is solved--or could easily be--for if they have anywhere near the meaning for you that they do for me, I think you will agree to that. Then we can get on with more important things.

1. Reading requires the integration of the entire organism. Reading is at one and the same time a cognitive (intellectual), affective (emotional), and physiological activity. In order to read, the organism must coordinate and integrate each of his (or her) response systems if the end product of all reading, the creation of meaning, is to result. Reading, consequently, is only incidentally a visual task. Persons without sight can learn to read as long as an appropriate stimulus is available for processing, for example. And it is also probably only incidentally an auditory task. Persons without speech can and do learn to use the other three verbal language modes. And even with normal persons, the notion that one must "hear" the sound of a word in order to recognize it is increasingly being challenged as we consider more carefully what is happening when a person reads. As I have suggested, reading also involves other sensory modalities and aspects of the organism although we are far from certain how this integrative behavior takes place. For example, Grace Fernald discovered long ago that employing the tactile-kinaesthetic modalities could result in improved reading of print.[6]

2. The verbal language functions (reading/writing/speaking/listening) are also integrative and interrelated. That is, each one is interconnected with the others. Common sense tells us this, of course, because it seems invariably, perhaps inevitably, true that people who are "highly verbal," i.e., talk easily and well, are people who are likely to be avid and rapid readers of print, who write well, and who are also good at listening. (Notice I didn't say they were good listeners.) Strangely, we have few systematic studies of the interrelationships between the verbal language functions. This is probably due to our tendency to think of reading as something apart, a separate subject in the school curriculum, which we certainly teach in isolation and research in isolation all too frequently. But of those few studies, let me mention specifically a very important one, a longitudinal study of over 200 children from kindergarten to the twelfth grade done by Walter Loban at the University of California at Berkeley.[7] Following these youngsters for thirteen years, each year assessing their competencies in the four verbal language functions, Loban found that competencies clustered together: high in one, high in the others, and vice versa.

The point to keep in mind, then, is that reading is not something apart; rather it is closely interrelated in ways which we largely must guess about not only with the other verbal language functions but with other ways in which we come to know the world. We need studies which ask how and in what ways is reading (and writing, etc.) related to art, music, drama, gesture, and other ways in which human beings re-present their experiences.

3. Language and thinking are interrelated, an interrelationship which becomes progressively more complex and involved, but they are not one and the same thing. Children come into this world without verbal language. It is easily demonstrated that children think before they develop the ability to speak. Beginning some time during the second year of life, verbal language abilities begin to take form. The child

begins during this period to use words to represent (to stand for) things. The end process is the creation of meanings, which is intelligent activity, but the words are only tools to be used in thinking, not thoughts themselves. For this reason, one can say that basic or native intelligence is only incidentally important in developing the ability to use verbal language as a tool for thinking. Without any question, intelligence is a factor in ultimately determining the facility with which language may be employed in thought, but it is not critical in determining whether a person will be able to speak or listen meaningfully, or for that matter be capable of reading or writing oral language put down on paper. We have as common sense evidence of this fact that children of all intellectual levels, except perhaps the most extremely retarded or intellectually deficient, learn to speak and to listen. And I have visited schools for the mentally retarded in Norway where "reading" was an accomplished fact for all the children enrolled therein. And of course, Durkin's study of early readers included youngsters both above and below average in intelligence. And finally, reading difficulties are experienced by children of all intellectual levels; reading problems are not necessary indicators of intellectual deficiency.

4. Language development follows similar but not identical paths from one individual to another. One cannot, for example, predict that "first word." The forms which one child develops competence with are not identical with any other child at any particular point along the developmental path although some very general trends have been identified (such generalizations have also been established across cultures and languages). Similarly, as far as print reading is concerned, there are no known rules which determine whether a particular word is easier to learn than another. In fact, the same general rules appear to apply in determining whether a word will be learned, either in its spoken, written, or printed form: namely, if the situation is meaningful, if the context in which the reader apprehends the word is highly relevant, then the chances of coming to "know" a particular word are greatly enhanced. Such learning is highly stable, i.e., once learned, it is truly known and will never be forgotten.

Overall then, while the course of language development in any mode is broadly similar, individual development follows a pattern which is unique to that individual. And while it is not difficult for parents to accommodate to this uniqueness as a child learns to speak and to listen, we teachers have a great deal of difficulty with it.

5. The appropriate time for beginning competence in any one of the verbal language functions is also fundamentally unique to the individual. While youngsters generally begin to use words in strings, or in meaningful combinations sometime between the ages of 18 months and two years, and develop considerable ability in this regard by the time they are three or so, the time for beginning writing and reading, and especially the latter, appears to extend over a considerable period of time. For writing, most children begin scribbling or otherwise attempting to represent their experiences by age two, if opportunities for such writing

are present. It obviously requires something to write with and on! Virtually all children progress from the scribbling stage to writing something meaningful, to them, by age five. That is, by that time virtually all children know the meaning of writing and can write their own names (and not infrequently, some other words). All children who have been provided with opportunities to write messages of their own devising in any systematic way can do so by five or six, certainly by seven. (I am not referring here to copy work or learning-to-write instructional situations.)

The normal point for developing independence in reading appears to extend over an even longer period, from four to eight or nine. Some children come to school able to read simple material independently. Studies of these children indicate that similar conditions were present as are there when the child learns to speak and listen: there was someone around to answer questions and to provide any other guidance sought by the child.[8] The "foil" in this case was either a parent or an older brother or sister who could read (in the oral language paradigm it is usually the mother, but perhaps someone else who speaks the language the child will learn). An overriding common characteristic of these learning situations is that all this "teaching" is done in a non-threatening, accepting atmosphere. Interestingly enough, and a matter which I shall return to, most early readers appear to get started through writing. That is, they started to want to write, got appropriate help, and after developing enough proficiency in expressing their own ideas (which varies from one child to another), sensed that they could read the writing other people had produced. They learned the meaning of reading.

But many children will, and must, wait, not just until they enter the first grade, but in some cases much longer. Since learning to read, like learning other language modes, is not dependent upon intelligence, we see many very bright children who cannot handle the formal instruction of the classroom in the first grade. It is meaningless to them, and they are not dumb. Similarly, there are children who learn early who are not highly intelligent, as we have seen.

It is true, of course, that early readers tend to be brighter than average, but there is no guarantee that this will be the case. Overall, then, we can expect learning to write and to read to take place over a broader range than speaking and listening. However most if not all of the conditions we observe in children as they learn to speak and listen are also present when they learn to read and write more or less spontaneously before school. While we think that more formal instruction is appropriate in learning to read and to write, we do have numerous examples of classrooms where teaching is patterned after the home experience, and these children learn without difficulty.

6. Getting the hang of reading involves learning concepts which cannot be taught directly. There has been a growing interest, as we are all aware, of the work of Piaget, Bruner, and other so-called cognitive psychologists regarding the development of intelligent behavior

and thinking in children and youth. These studies begin with infancy and extend into the adolescent years. We have learned from the studies growing out of this huge amount of research that the quality of children's thinking changes as time passes and as a result of experience. Of these two factors, time (or maturation) appears to be the more important; however, it cannot reasonably be doubted that the quality of a child's experiencing is extremely critical, perhaps not so much in speeding up development as in enriching it at any particular state. For it seems evident that pushing development through training or education is only marginally effective just as it is clear that once a stage is attained, there will be no backsliding.

At about the age of six or seven, most children enter into what Piaget has called the stage of concrete operations. It is a time when the child discovers the principle of reversibility, i.e., when an object appears to change its characteristics, as when a ball of plasticine is converted into a "snake," or water from a tall, narrow pitcher is poured into a low, squat one. In such instances the child who has entered the period of concrete operations can "conserve," i.e., he can keep in his mind what the object was like before and what it can become again. The nonconserving, preconcrete operational child is sure that seeing is believing. The object in fact became transformed. In a recent study, Jenkins studied children ages 6 to 9 to see if he could find a relationship between the ability to read simple materials independently and the presence of this particular ability to "conserve" matter.[9] He discovered that virtually all of the children who were reading independently had entered the stage of concrete operations. He found, however, that there were some children who could not conserve, who were reading independently, but their number was very low. Finally, he discovered that children who could not conserve were not independent readers, regardless of their age, the kind of instruction they had received, or the materials used in their classrooms.

I think it is generally conceded that, as I have hinted, it is not educationally feasible to try to hurry children in moving from one stage to another. It is feasible to enrich a particular stage, to work on the quality of classroom life, since that appears to give the child a stronger base from which to operate. And since it appears not to be possible to "teach" for this purpose, it seems reasonable to assume that there are some conditions which must be met before reading independence can be gained. At least this appears to be true as long as we decide to use logical instructional approaches in working with children. For formal instruction in reading employs strategies which are in effect strategies of conservation. We ask the youngster, for instance, to look at the first letter or at another portion of a word; we ask them to imagine another letter (or sound) in the place of the one that is there, etc. John Downing and several others have investigated children's understandings of these strategies and, given Jenkins' findings, it is not surprising to report that a very large number of six-year-olds do not know what a word is, what a sound is, what the beginning of something is, or its ending, and they do not know what a letter is either, or

what the space between words is for. Children who do not know these things have a great deal of difficulty in learning to read, yet they are ideas which cannot be taught directly, just as the ability to conserve cannot be taught directly.[10]

I want to mention one final research project, this one done by Jeanne Fryer.[11] She interviewed children to find out what they thought reading was. Children who have vague or even incorrect notions about the meaning of reading, that print is some kind of systematic way of putting down ideas and that reading has some particular uses, had yet to become independent readers. Those who knew, "It's telling stories in your head," were on their way. Again, these are ideas that cannot be directly taught. They are learned as a result of a wide variety of experiences and evolve only gradually. Once again, the emergence of these ideas in the child's mind is only indirectly related to native intelligence, and I think we would be remiss if we associated them too closely. It is unfair to the child.

7. Reading, like speaking and listening, appears to be a behavior which comes about more as a result of its being evoked rather than invoked. We are not certain how a child, every child, learns how to "say" a particular word as a specific meaning is called to mind or to "know" what a certain word means when it is heard. We are even less certain how words in their printed form are recognized as having reference to a specific meaning and become known so that there is never any question as to what they represent. Goodman has described the process, but not the memory system, as "a psycholinguistic guessing game"[12]; Smith thinks it is a combination of sensing things in common and an ability to distinguish "distinctive features."[13] Nor do we know how it becomes possible for someone to represent language with symbols. What seems increasingly evident is that just as oral language is a capacity which all humans possess, so is there a capacity for developing the ability to read and write. It is a natural kind of thing. Everyone can do it; in fact everyone does do it. The question is the extent to which we will allow for it to provide the circumstances which are necessary to release the pre-existing potential for reading and writing within each person. This suggests that reading and writing are not awkward, unnatural, or hard-to-learn. They are certainly highly complex, requiring the reader to integrate an enormous array of different kinds of skills and capacities--for thinking, feeling, not to mention neural and muscular capacities, as I have already suggested. And so I would have to agree with the editors and contributors to a little book called *Language and Learning to Read: What Teachers Should Know About Language*, that "it is only in a trivial sense that we can teach a child to read, any more than we can teach him to speak."[14] Teaching in this sense refers to our attempts to enter directly into instruction which is designed to invoke reading behavior. But teaching which evokes reading and writing is also possible, and I want to return to that in more detail in a moment.

8. Learning to read by reading; learning to write by writing. If what I have been saying about reading and language development generally is true, as I believe it to be, then the admonishments about the importance

of practice which you and I have been reading over the years must have some truth to them. A number of years ago I came across a set of these called "Twelve Rules for Reading."[15]

1. Read
2. Read
3. Read some more
4. Read anything
5. Read about everything
6. Read enjoyable things
7. Read things you yourself enjoy
8. Read, and talk about it
9. Read very carefully some things
10. Read on the run, most things
11. Don't think about reading, but
12. Just read

Frank Smith has come up with a similar set, mentioned, I think, in his book *Understanding Reading*.[16] And of course you have read others. Reading is such a fetish with us that we have spent less time thinking about, and writing up rules for, improving writing abilities. My own view is that the same principles apply for writing. In fact, if we were to draw parallels for writing and reading with speaking and listening, we would see that opportunities for writing should be encouraged before, or certainly at the same time as, reading. Teachers should see that they progress together rather than postponing one until the other appears to be established. But that is another talk.

In my view, then, I think it is probably quite presumptuous of us if we think we can invoke reading, except, as I have said, in a quite trivial sense. Children very largely teach themselves to speak and to listen; so it seems do they also teach themselves to read and to write. Our problem is to arrange an environment where powers and potentials and innate capacities can be released.

And so, the problem of literacy is solved with one unfortunate exception. If Indiana is anything like California (God forbid you ever have a Jarvis-Gann, or rules which require first graders to pass an examination proving their competence in reading, as we do), then there are great pressures for increasing the kinds of things in classrooms which are designed to invoke reading in kids. These pressures are not designed to get us beyond literacy where the uses of language become a joy and an opportunity to improve the quality of life around us. They are instead causing millions of children not only to be miserable but to hate school and, worse, learning. And these pressures are not based on educational considerations. They are instead based on political and economic reasoning. Reading is a political issue. What happens to test scores is more important than what happens to children. It is also an economic issue; no other business enterprise is as large or influential in determining what happens to children in schools than the publishers of reading materials. The interconnections between business and politics in reading must be clear for all to see.

Given the traditional independence of teachers and the real possibility that the political and economic influences in schools can be minimized, at least in some classrooms, what kinds of things can we look forward to in going beyond literacy?

Since we are probably creating many if not all of the problems in reading which we seem to be confronted with, I believe we can "have our cake and eat it too" if we will only go with the situation rather than fighting it. What seems important to me is indeed rather simplistic. In my view of it, reading is an extraordinarily complex process, but the problem of teaching reading may not be all that complicated. We have been told for many years that "reading" runs counter to human nature, that it is even an "unnatural act." And of course we have been told that it is particularly hard for the little ones, the kids at the starting block. The only evidence put before us to prove the truth of this is the fairly sizeable number of youngsters who indeed are having trouble getting the hang of it all. But the existence of these children is not proof that there is a causal relationship. In fact we may be creating the problem, and there is evidence, some of which I have mentioned today, which strongly suggests this may be the case. For example, we are using language which the children do not understand; we are forcing instruction upon children who do not comprehend the logic behind the instruction, all the while assuming that failure to respond correctly indicates there is a fault in the child rather than in the teaching.

So we can "have our cake" in the sense that basic literacy ought to be an achievable objective, as it is around the world where literacy is a reasonable national goal, and we can "eat it, too," in the sense that the unbelievable wealth of this country provides a base for working on the really important thing: improving our citizenry's quality of life through literature, the arts, and the content fields across the board. Children love to read and to write if someone doesn't come along and make it unpleasant business. How can it stay pleasant business? My belief is that we must go with nature, not run counter to it. We need to find ways to release abilities that already exist. And I am aware that the question is always present: What does that mean for everyday teaching? My answer to that is quite simple, and frustrating. I don't know of a single method or activity that I would recommend above all others. The approach which I think is most compatible with what seems important to me in the learning-to-read process is one which takes many shapes and forms and which, in the United States, we call a language-experience approach (that terminology is unknown in England, but the approach has been in wide use there for many, many years). There are innumerable permutations of the language-experience approach, and any person who is going to use it has to devise his own plan. But there are things beyond that: giving more attention to music and art and aesthetics generally; reduction in the amount of formal instructional time in reading to the point of its elimination by grade three--but with continuing attention to critical reading at every level and in every content area; oral reading (by both teachers and children) every day; attention to dramatics (e.g., readers' theatre, socio-drama, play writing and acting); formation of literary clubs; focus on people who write for a living (and read for a living); acquainting children with all kinds of literary forms, primarily through experiences in actively producing poetry, narrative, expository writing, etc. themselves; reducing to a minimum negative criticism and heightening positive criticism of any language effort, particularly for the lower three-quarters of that so-called achievement scale;

keeping written records of daily progress, individualized annotations on performance in reading and listening and retaining samples of individual efforts; personalizing as well as individualizing all language activities . . . these are some of the things which are important to me.

What I suggest is nothing more than building a balanced curriculum. The times have put severe strains on us as we struggle to keep that balance. In California it is fairly well lost; the only things that are of concern are reading scores and arithmetic. It hasn't occurred to our legislators that the human organism is a finely tuned instrument, adjusting to an environment in a manner which that particular organism thinks is appropriate. The kind of learning it will be amenable to depends upon a number of factors; it is not like driving a nail with a hammer when it comes to learning, and particularly to learning to read. The whole process is very subtle. It depends upon the social context, within the school and out, upon the values of the teacher and the children, and a dozen other things, or more.

NOTES

[1]*Los Angeles Times*, week of June 5, 1978.

[2]Edmund Burke Huey, *The Psychology and Pedagogy of Reading* (MIT Press, 1966), orginally published in 1908.

[3]John B. Kerfoot, *How We Read* (Houghton Mifflin, 1916).

[4]Peter L. Spencer, *Reading Reading* (Claremont, California: College Press, 1970).

[5]Walter Loban, "Our Expanding Vision of Reading," *Claremont Reading Conference 42nd Yearbook*, ed. Malcolm Douglass (1978) in press.

[6]Grace Fernald, *Remedial Techniques in Basic School Subjects* (McGraw-Hill, 1943).

[7]Walter Loban, *Language Development: Kindergarten Through Grade Twelve* (National Council of Teachers of English Research Report Series, 1976).

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OUTSIDE, INSIDE, RIGHT SIDE UP!

David Waterman

The title for my talk this afternoon comes from a rearrangement of the title of a book that was given to my daughter shortly after she expressed an interest in learning to read. The donor was Mrs. Gibbs, who wrote, "For Cathy, who already loves books inside, outside, and upside down." The book is a bright and early book designed for beginning beginners, according to the cover, and is titled: *Inside, Outside, Upside Down,* by Stan and Jan Berenstain. Cathy's environment at home is one surrounded by books, and she, being a sensible child, has absorbed her parents' love of books and reading at an early age.

Our reading conference has the theme of the reading environment for some very good reasons. I like the theme, and I shall relate it to three kinds of environments. First, the inside environment which translates into the classroom, bounded by four walls and somewhat traditional in structure, but lending itself to many new and distinct patterns as our knowledge of children and their needs emerges. Second, the outside environment where the world expands into an indefinite horizon full of new ideas, but also old ideas with a new look, as we shall see walking, rather than riding, to school each morning. Last, the environment that makes each of us an island, that is, our internal structure which--gathering impressions through imperfect senses--tries to make sense, in terms of our past experiences, of the stimuli that bombard us every second of our waking, and sometimes sleeping, lives.

Let us begin with words. Where would we be without words--words to describe, to quantify, to qualify, to share, and to internalize our thoughts? The raw material of words is experience, and when we read without experience, we are indeed upside down! Imagine for a moment that you cannot speak, only feel. How would you describe the morning dew burning off a roof, the chill morning wind twirling around your neck and ears, the acrid odors that waft from the plants west of the city, the dulled edges of stones trying to poke through your shoes as you trudge over the driveway, and the chorus of birds sounding out their own "good morning" as you hurry your way to school.

S. I. Hayakawa, in a speech titled "Mass Media and Family Communication," speaks of the semantic environment. He says that a quick way of describing the semantic environment is to say that it is the part of the total environment which your pet dog, lying on the rug at your feet, has no inkling of. "It is the world of Shakespeare and Mozart and Bugs Bunny and the Beatles: of Moses and Jesus and Billy Graham; of published

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batting averages and closing prices on the New York Stock Exchange; of news from Tokyo and Prague and Saigon. The semantic environment is the product of that vast network of communication which we call civilization." I suppose to update this, I should say it is the world of Debbie Boone and "You Light Up My Life . . . ."

When the child goes to school, he enters a new environment. One of the most telling experiences I had after being in the Army for two years was to walk into the school I had left earlier and to be instantly reminded of where I was by the odor of accumulated wax, cleaning fluids, and countless bodies that had a distinction both unique and instantly recognizable. There was an immediate and overpowering sense of being back, accompanied by a rush of memories too strong to resist. Our schools, being public, entertain children from all kinds of backgrounds, environments, if you will. Now they are suddenly transported into a world of new raw experiences--sight, sound, smell, taste, and feeling. My Army experience was a returning to a familiar, if somewhat forgotten, environment. But the child enters what must seem to be a strange, somewhat mysterious, even frightening situation. How many times have I, as a principal, had parents bring their young child to me and announce in a somber voice, "Jimmy, this is Mr. Waterman, the principal. He will give you a licking if you don't behave!" (The reader will recognize that this must have been some time ago when such things were allowed.) The newness of the environment is enough without the added flourish of a stated or implied threat. Besides, that aspect of my job was the least important and the most neglected.

When the child enters the classroom, he is in a restricted environment. The restrictions are spatial, temporal, and conceptual. Most teachers recognize the limitations of teaching within four walls, and, indeed, later on I am going to show you several slides of classrooms where some attempt to alter the four-wall restriction has been made. Imagination and books, together, may help us to expand those four walls.

The restrictions of time are also working; there is so much to do and so little time and so many interruptions. Teachers are great adders and poor subtracters. So are curriculum consultants, principals, school boards, state boards of education, and not the least, our own federal government. Everybody wants to get into the act. So we do not have time to read in a relaxed fashion. For a principal to see a teacher reading to herself at her desk while her pupils are reading at their desks is still, unfortunately in some schools, considered a waste of time. Uninterrupted Sustained Silent Reading (U.S.S.R.) or Sustained Silent Reading (S.S.R.) if the political connotation of the first term bothers you, is not practiced very widely, even though there is good research evidence that it works to improve a child's attitudes towards reading.

The conceptual restrictions of the school environment relate to the teacher's own ability and knowledge and also to the censorship activities that have lately become more prevalent in our schools. Ada L. Kukurisas spoke to this point very ably last year at this reading conference in her talk titled, "Reading's Constant Challenger: Censorship, Overt and Covert."

There are the further restrictions that come from the child's own lack of experiences. In the beginning stages of reading, we are told, we ought never to ask a child to read a passage which, if read to him, he wouldn't understand. I challenge you to examine the books that your children read in school to determine whether all of the concepts taught in them are within the experience of the child. We shall try to overcome this problem with the many media techniques that are available in today's world. Pictures may help, but they can be deceiving. Remember the old movies (those shown on television after midnight). The airplanes flying in WW I movies apparently have strings attached to their fuselages. Without a point of reference, such as a human figure, a picture of an insect may be viewed all out of proportion. We must take as much care to present a visual environment the child can understand as we take to screen the concepts he reads about.

Here are some slides illustrating some of the ways a classroom environment can enhance the teaching of reading. Among these are centers dedicated to reading in which the pupil has to be reading in order to occupy the center. One teacher uses a bathtub, the old-fashioned kind, with claw legs and lots of stretching room. In the tub are pillows, and the only requirement is that to occupy the tub, you must be reading, and of course, only one customer at a time. Books should be displayed with the covers in full view because in many cases the cover "sells" the book. Chain stores know this, and their book racks are arranged so that the customer can examine the covers. The dispersal of desks, or in some classrooms, elimination of desks altogether, makes for groupings that are more informal and intimate. Since reading is an intimate act in which you share your ideas and feelings with an author, the personalized aspects of reading are enhanced in these groupings. Allowing pupils to choose books they want to read, rather than always assigning specific reading materials, enhances reading. Children are committed to materials when they have a say in the choice.

The library should feature many comfortable chairs. In one of our schools there is a large contraption built into the library. This contraption is so constructed that children can sit inside it or on the sides, which are spaced and covered with rug-like materials. Such a device offers a center of interest and attracts many otherwise reluctant Title I children to reading since they can combine their reading with the kinesthetic experiences of climbing and balancing.

A classroom ought to feature good bulletin boards. I like Jeanette Veatch's definition of a good bulletin board. She says a bulletin board is good when children stop to look at it and read it.

A good selection of trade books is essential to promoting reading. Because there are over 2,000 trade books for children published each year, teachers need to be selective in choosing them. Obviously not all of the trade books published are of high quality, and teachers and media specialists should seek out those that best meet the needs of their pupils.

The world of books can be made more real through imagination. At one school the children have a "book-character" day when they dress the part of their favorite book character. During the day they are allowed to parade through the halls, sharing their costumes. The day culminates with an assembly, and the children parade across the stage while the audience guesses which book character each child represents.

The child brings his environment to school in many ways. The words he uses reflect that environment. The concepts he understands, or fails to understand, reflect that environment. The outside environment may seem to be infinite in scope, but it is, in fact, also restricted. One can see only as far as the horizon, and even looking up at the sky results in distortion. We are told that the moon on the horizon looks larger than when it is directly overhead, a distortion that has yet to be satisfactorily explained.

When I realized that I would be asked to speak on the reading environment and when I chose to base my talk upon the concept of inside and outside, I decided to use the knowledge that I gained about my own reading environment as I walked the 3.9 miles from my home to this university each morning. Since I am teaching a 7:30 class, walking to school required an early departure, specifically 6:00 A.M. at the latest. After one or two trips to school, I took my camera with me, and the resulting slides, with comments, constitute the latter part of this presentation.

Some of the sensations I observed while walking to school are directly related to words and experiences. When walking, you see things that totally escape you in a car. The sensations are quite different from those you experience when riding, and there is the luxury, if you leave early enough, to stare and ponder over many things you see. In addition to taking several slides with my camera, there are a few images I recorded only with the mind's eye, as children record their experiences. The images suggest some reading and writing activities. Among those remembered were the flat remains of an ice-cream cone, with ice-cream dripped and splattered on the pavement. What, I wondered, had happened? Did some child drop her cone, and run home crying? Or were a couple of kids horsing around, and suddenly one reached out and knocked the cone out of the other's hand? Another, more tragic picture that I passed up, was that of a pet, recently run over, the carcass still in the street, dragged to one side. What questions crossed my mind? What questions cross your mind as you visualize this small incident of raw life?

With camera in hand, I tried to avoid the obvious, but I could not resist a first picture of our mailbox as I started out. Along the paths to school, I passed many mailboxes, and, surprisingly, many of them were unique. A few had small ceramic animals attached to them. Ours used to feature a horse and fire engine, but time has weathered out the pattern so that only a dark spot remains. The idea for a reading activity came to mind. Children would enjoy reading the names and numbers of mailboxes and comparing sizes. "What could fit in this? I wonder what they do when they get a large package?"

Down the street I saw the construction of several new houses, an area about to be developed at the end of our block. How many questions one might ask about these houses, "Who do you think will live here? What will they do with all that mud? Why are they cutting down all the trees?" Further along, I noted the pot holes in the street, temporary reminders of last year's severe winter. Now I walked through Deming Park, seeing signs of various kinds: Keep Out, Coca Cola, Do Not Feed The Animals, Pitch IN (which evidentally several people tried unsuccessfully to do), and Railroad Crossing.

The environment on upper Ohio features a corn field, weedy sidewalks (how do the weeds get there?), and further west, a changing neighborhood. In a car the changes are so rapid one barely notices them, but as you walk you note how the houses are getting smaller, the lawns not so well kept, and finally the alleys and garbage cans littering the way. Things I had not noticed before, although I've driven this street for over twelve years, are the marker that says "Deming" at the juncture of the gates going into upper Ohio and the barn behind a house near 22nd and Ohio streets.

But these are merely visual impressions. The odor of freshly cut grass hits you every once in a while. There is a distinct change in the air as you near town; it becomes dirtier, warmer, and more humid. A child could raise many questions about these changes and explore, in his reading, some of the reasons why. The changes occur on the surfaces, from sidewalk to field, back to weedy sidewalks, across streets, along dusty gutters, and the hot asphalt pavement as the sun rises. One sees the dog walker, the jogger, the school crossing guard (and always a friendly "hello"), the paper boy, and even the garbage trucks starting out on their collection.

As you walk you begin to feel a certain detachment, as if a slow moving panorama is going by you, except now your legs are a little sore and your shirt is getting a little wet and there is a lightheadedness that comes from former lack of exercise. You become, in a sense, more aware of your body (and how many words you can find to convey that feeling). Finally, you see your destination, and the neighborhood is poorly kept. The railroad crossings are even rough going for pedestrians, and you're glad you are walking instead of bouncing over the tracks in a car.

A walk provides a slice of raw material from which speaking, listening, reading, and writing can emerge. Small children will likely record only visual impressions at first . . . "I saw, I saw . . . ," but with a little guidance, they can become aware of other aspects of the outside environment. They can compare the neighborhood they live in with that around the school (how, in terms of what, can we compare and contrast?). The teacher may need to be specific in developing good observational skills. Strong stimuli can be highlighted--a steam pipe belching steam; waiting for a train (the noise, the heat, the dust, the wind); cars racing to work (and sometimes narrowly missing you as you cross the street). Bringing these impressions to mind may be aided if you carry a Polaroid camera to record some aspects of your walk. This also provides sequence. A return to the classroom, some discussion, a recording of the experiences, writing, editing, rewriting and polishing,

then reading and sharing our experiences with others . . . these are some of the benefits of going outside the classroom. *The direct* experience this provides comes through the senses, and stimulated to awareness, the child can develop and tune himself in to what is taking place around him.

Is it worth the trouble? You need permission slips to leave the classroom. There is the risk incurred when you cross busy city streets. Trying to keep the children together may be difficult. Sometimes a walk may be very short, just around the schoolyard, and yield many significant impressions. But will the payoff be worthwhile? I think the answer is in what happens to children when they are free to use the outside environment as well as the inside environment.

An emphasis on experience may seem upside down, but actually experience is the key that can turn reading instruction right side up by unlocking the child's ability to recognize correspondence between written words and things he has touched, tasted, smelled, heard, and seen.

Speakers Ann Ely and Lawrence Reck

DEVELOPING CRITICAL READERS

Ann W. Ely

Teachers involved in the teaching of reading hope that the end result of their work will be people who not only can read, but who do read as a matter of habit.

Surveys show that people who read regularly spend most of their reading time with the daily newspaper. Therefore, students should learn to read the newspaper critically and reflectively.

In *Teaching Reading Skills Through the Newspaper*, Dr. Arnold Cheyney discusses the subject of developing critical readers:

> "Before a person can become a critical reader of newspapers, he must understand the general message of the material he is reading. A number of factors influence comprehension and critical reading, the most important of which is general intelligence. Other factors are:
>
> The limits of a meaningful vocabulary
> The ability to organize material after reading
> The rate of reading (reading so slowly as to forget, or reading so fast as not to remember)
> The interest value to the reader
> The background of the reader's experience for the particular material read
> The readability of the material (complexity of sentences, or amount of white space between the lines)
>
> ". . . critical is defined as 'a process characterized by careful and exact evaluation and judgment' or 'to judge a matter severely.'" This kind of critical analysis must be taught with reading material used in the classroom. There are many voices to be heard and ideas to be accepted and acted upon. Many writers use a variety of sometimes devious and subtle methods of thought control to accomplish their aims. To determine objectively just what and whom to believe requires the utmost skill and judgment.

Ann W. Ely is Newspaper In Education Coordinator with The Indianapolis Star.

DEVELOPING CRITICAL READERS

"Critical reading goes beyond the basic prerequisite of general comprehension skill by making fuller use of analytical thinking processes. This factor is particularly evident as one studies the . . . important critical reading skills."

Following are the critical reading skills, as outlined by Dr. Cheyney. With each skill are listed one or more exercises for developing these with the newspaper. The exercises have been gathered from a variety of sources.

Anticipating Outcomes

* Have students choose a feature story or column dealing with an area of interest, in small groups. The topic could be anything which is continuing to develop, such as:

A trial	Upcoming award ceremony
Sports tournament	(Miss America, Academy Awards)
Local controversy	Bill in Congress

Have them develop some hypotheses about the outcome of that event before they begin studying about it. They will, of course, have to read the initial story in order to get background on the event.

During the study, students will be allowed to revise their hypotheses to fit new material; however, they should keep their original hypothesis for comparison purposes.

At the end of the event, students can make some comments about the similarities and differences between their predictions and the outcome.

* The same project could be done with serial story comic strips.

Classifying Ideas

* Exercises using classifying skills frequently present themselves in the course of any study with the newspaper. Opportunities range from the elementary to ones which require careful discrimination. Here are a few:

Sports stories dealing with team sports/individual events
Types of comics (panel, humorous strip, continuing story)
Events which may affect us personally vs. those which will make no difference
Local, state, national, international news
Stories which the writer actually witnessed vs. events described by another person

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Cheyney, Arnold B., *Teaching Reading Skills Through the Newspaper*, International Reading Assn., Newark, Delaware, 1971.

DEVELOPING CRITICAL READERS

Comparing and Contrasting

* Students, individually or in small groups, should choose two items from the newspaper, such as:

Two politicians	Two comic strip characters
Two entertainers	Two sides of an issue
Ad for TV show/review of same	Two newspapers from different cities
	Cartoon vs. photo of same person

After drawing a chart divided into two sides, with one side labeled "Comparison" and the other labeled "Contrast," the students should find as many likenesses and differences as possible between the two and record them in the proper column.

When they have finished, students should rank the items in each list--from least important to most important, or concrete to abstract.

* If students have been talking about advertising, they may wish to use ads for similar products or services to compare and contrast.

Distinguishing Fact and Opinion

* The old distinction between fact and opinion in the newspaper held that opinion belonged only on the editorial page and the remainder of the newspaper properly dealt only with fact. This is no longer true--if indeed it ever was. Students can discover this for themselves by building a bulletin board display with as many differing examples as they can find over several days. They will probably find these:

Personal Opinion	Factual
Letters to the editor	News stories
Report of sports event involving a local team vs. a distant one	Box scores
	Obituaries
	Stock market listings
Business column (by-lined)	Calendar of upcoming TV shows
Concert review	Recipes
Advice columns	How-to articles
Advertisements	
Editorial cartoons	

* A more difficult exercise involves separating fact from opinion when both occur in the same article. (The sports report listed under "Opinion" above undoubtedly would contain elements of both.) Any by-lined news story or column might reflect the writer's opinion, based upon his specialized knowledge and experience.

An easy way to begin is with the comics. Using marking pens, students can block off "opinion" statements in green, and "facts" in red. Connotative words can also be identified.

DEVELOPING CRITICAL READERS

Drawing Conclusions

* For constant practice in forming opinion from given data, students can be encouraged to give in their own words what they feel is the most important point of any article under discussion. Especially appropriate for this purpose are:
  - By-lined articles by local columnists such as Tom Keating or Fremont Power
  - Interviews with celebrities
  - Photographs of a condition: e.g., wrecked automobile, deteriorated home, unposed shots of people

Identifying and evaluating character traits

* Look for heroes in the newspaper. Have students find stories and/or pictures of an individual who, in the student's personal opinion, is especially admirable. This could be:
  - Ordinary citizen who has done a heroic deed
  - Successful sports or entertainment figure
  - Politician who has taken an unpopular stand
  - Individual who has overcome a personal handicap or severe tragedy

Compare notes on the heroes selected. Have each student tell the specific accomplishments or characteristics that make this person worthy of being looked up to. Are there any traits that several of these special people possess in common?

* As a nonverbal exercise, students can look through newspapers to find people whom they would like as:
  - A next-door neighbor
  - An employer
  - Someone to help in time of trouble

* The letters to the editor and to advice columnists frequently reveal personal characteristics of the letter writer. Have students select interesting letters and list the clues to the writer's character. Reasons for such listings must be given.

Additional Critical Reading Skills

In addition to the skills discussed above, Dr. Cheyney identifies others whose application to newspaper reading is readily apparent. These include:

- Identifying and interpreting facts
- Weighing validity of facts, particularly in a controversy
- Establishing cause and effect
- Establishing sequence
- Generalizing
- Interpreting figurative and idiomatic language

THE VISUAL ENVIRONMENT FOR LITERACY

Lawrence Reck

How visual is the environment of your classroom? Are you utilizing multimedia to the fullest to strengthen your reading instruction?

Research by Knowlton and Tilton points out that 22 percent more knowledge was retained after three months when multimedia were used in the instruction of children as compared to students taught without multimedia. Wittich and Fowlkes cite that children taught with multimedia learned 48 percent more in elementary grades, and as much as 85 percent more in specific subjects, than those taught without multimedia. Since media help children's retention, they can be valuable techniques in the teaching of reading.

What other benefits result from a rich visual environment? One is effective communication. You as a teacher may be of different intelligence, social, interest, communication, and cultural levels than your students; therefore, you must disseminate your information in as many ways as possible to assure that the maximum number of students receives your message. Media provide limitless possibilities for communication. Each child must receive and decode or interpret your message. Primarily, he or she interprets on the basis of past experiences or tries to relate the message to something he or she already knows. When the child satisfactorily demonstrates an understanding of your message, effective communication has taken place. Achieving this with every student in all instruction is overwhelming but challenging.

To illustrate how concepts are associated with past experiences consider the title song from Oklahoma, "Oh, What a Beautiful Morning, Oh, What a Beautiful Day." What does this suggest to you? A sunny day with puffy cumulus clouds in the blue sky, with a gentle breeze, and with a temperature in the 70s? Would this description be the same from a farmer who has just planted his fields? No, he pictures a soft spring rain. Does the ski enthusiast visualize rain or warm temperatures? No, he views cold weather and snow as his beautiful day. Your needs, interests, experiences, and background influence your definition of a beautiful day. When you are asked to describe a beautiful day, you probably first draw a mental image in your mind and then verbalize your image.

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Imagine the following:

> "It is a curious-looking animal, of unknown relationships, having a stout piglike body, long snout, donkeylike ears and powerful short, thick legs armed with strong, blunt claws. The body averages four feet in length, with the tail an additional two feet. In colour . . . [it] is pale sandy to yellow, the hair being scanty and allowing the skin to show . . . ."[1]

Can you identify the image? If not, it's the *Encyclopaedia Britannica* definition of an aardvark. Did you have trouble relating the above information to specific characteristics with which you were familiar? How stout is a stout body? How short are short legs? How long is a long snout? If you were to see a picture of this animal, would you be able to describe it more effectively? Would it be easier to remember the information after both seeing a picture and reading the definition? Such an example demonstrates that when children are exposed to visuals, words take on concrete meaning for them. Visuals help teach children to recall mental pictures. Early Greek and Roman orators would speak six to eight hours at a time without a single note. They associated their ideas to the furniture order in their homes. Each group of thoughts was associated with specific pieces of furniture in the house. While speaking, an orator would visualize a trip through his home and speak from the mental pictures related to each item of furniture throughout the house. (What problems a change of decor might have caused.) The more visuals available to your students, the more images they have to recall and associate with new and unfamiliar situations. Visual media can make a great impact on learning and, therefore, are of vital importance in your teaching. The students see a picture--then see the word, or see the word--then see the picture. A visual image of that picture and word is now available for recall, and reading is mastered as words are understood and remembered.

Various reading and listening problems can be alleviated with the use of media. Many of the primary reading problems center around the fact that for the basic 500 words in the English language, there are 14,000 definitions. The word "rose" has 57 definitions while "run" has over 100. What does the term "run" mean? When you display a picture showing the specific meaning you are using, the message becomes evident. Words without concrete referents have little meaning, especially for younger children. Alexander exemplifies the influence of background experience, or a lack thereof, in his example of a South Sea islander trying to describe palm trees to an Eskimo who has never been below the northern tree line or the Arctic Circle.[2]

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[1]Aardvark, *Encyclopaedia Britannica*, Volume 1, p. 3.

[2]Hubert Alexander, *Language and Thinking, A Philosophical Introduction*, (New York: D. Van Nostrand Company, 1967), p. 24.

Visual media may also be used to enhance the reading environment in your classroom through the use of bulletin boards and study displays. Live specimens and three-dimensional models or mock-ups clarify visual images and stimulate verbalization. One teacher explained that she makes her classroom as visually stimulating as possible and then waits for each child to ask for information about a specific area. She then asks if the child would like to read about it. The visual environment establishes an interest which nurtures the child's desire to learn. The teacher then teaches the skills necessary to proceed. She has experienced positive results from this method because the visuals help students discover their own motivation.

Still another important use of visuals is in teaching children to read pictures. We often have children look at illustrations in a book but fail to teach them how to read pictures. This is essential to create a visual impression of the words; for when they actually read the words of the story, they can relate the words directly to the pictures, visualizing the story more accurately and retaining its content longer. The three progressive levels of reading a picture are:

1. The identification level

   Have the students identify the items within the picture. The children, therefore, are observing the entire picture and not overlooking any part of it.

2. The description level

   Have the children describe the details in the picture.

3. The interpretation level

   Have the children draw inferences as to what, how, and why things are occurring.

Children are becoming increasingly more visually oriented. The average household in the United States has television on approximately 5 3/4 hours per day. Most children have more exposure to television than they have to their teachers. Many have, therefore, already established the need for visual stimulation and protest or resent the lack of it within the school. Research by the 3-M Corporation cites an average person's retention one week after exposure to various media:

1. read only -- 10 percent
2. hear only -- 20 percent
3. see only -- 30 percent
4. see and hear combined -- 50 percent

By stimulating more than one sense at a time, using multisensory media, teachers can help students increase their retention and, in turn, their reading proficiency.

A child responds to language long before he can speak. In order for the child to speak with facility at a later stage, he must have exposure to spoken language at all stages, especially from ages one to three. Researchers state that the earlier a child is exposed to language, the better he or she masters linguistic patterns. Reading to infants helps them read earlier, and this is why culturally disadvantaged children are often slow to read; for they fail to separate speech patterns from other noises which surround them. Radio, television, records, and tapes are examples of valuable media to use in exposing an infant to linguistic patterns. But as the child progresses, provision for the appropriate use of the best media to convey the message must be made if the fullest cognitive and affective development of each child is to be achieved.

Reading proficiency can be increased if some of the techniques described earlier are integrated into your teaching methods. Media can help children learn more, retain more, and acquire concrete referents with which to associate written words. Media may also be used to stimulate students' interest and to provide them with variety and a change of pace. Multimedia and the visual environment are vital in helping students discover their own motivation and in fostering reading skills and retention, and therefore can be prime movers in your reading program.

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QUESTIONS YOU HAVE ALWAYS WANTED TO ASK ABOUT TEAM TEACHING -- AND SOME ANSWERS

Margaret Liebermann and Marian Rutledge

As Dr. Waterman told you, Margaret and I are elementary classroom teachers. She brought her experiences as a school librarian in Columbus and as a third grade teacher in Vincennes into our experimental team-teaching situation. I added my experiences as an intermediate teacher in Bloomington and as a third grade teacher at the Indiana State University Laboratory School. We are not experts who have all the answers, but we are very excited about team teaching.

It has been a challenging, stimulating, rewarding, and very enjoyable year for us professionally, and we feel it was equally profitable for our forty-three students.

We found there was a special atmosphere in our classrooms when we tried team teaching. A cooperative attitude prevailed between the children and the two teachers as well as among the children. We had mutual respect, trust, and cooperation and communicated openly with each other. Our students seemed to understand this and emulate it. This congenial environment allowed us to provide better instruction for all children and to thoroughly enjoy doing it! In such a classroom we could encourage the children to work on needed skills at their own rates and to feel pride about successes.

We'd like to share with you the questions we had about "teaming" as we prepared for a new school year and some answers we discovered along the way. We will emphasize organizing and planning for team teaching. We've brought sample record sheets and activities to share also.

1. First, what is our definition of "teaming"?

> To us, teaming means teachers working together to provide instruction for a group of children. It does not mean one teacher teaches all of the children while the other teacher has released time. It does not mean one teaches math to all of the children and the other teaches reading to all of the children. Instead, it is the cooperative effort of two teachers with complementary strengths who work together regularly and purposefully to plan, to prepare, to present, and to evaluate learning experiences.

Margaret Lieberman is Coordinator of Special Education Materials Center at Indiana State University.

Marian Rutledge is Instructor of Elementary Education at the Indiana State University Laboratory School.

2. What made us decide to "team"?

   a. We both had an interest in trying this approach.

   b. We found during conversations before the school year began that we had similar philosophies about goals and objectives.

   c. We admitted to frustration over trying to meet a wide range of needs in a single classroom. Three or four groups were the limit in management for each of us.

   d. We felt a need for support and suggestions about handling children's problems.

   e. We disliked the rivalry, and sometimes jealousy, often exhibited between two classes in a given grade level.

3. Why did we start with reading?

   We considered reading and language development the most important goal of the primary grades. Also, our previous teaching experience seemed to show a wider range of achievement in reading than in other subjects.

4. How did we begin?

   At the beginning of the school year, we looked at our schedules for special subjects and found we had a common block of time each day: Monday, 1:00-2:15 p.m., and Tuesday through Friday, 9:30-10:45 a.m.

   We spent the first two weeks of school administering an informal reading inventory to each child. We used the Indiana Test of Basic Skills. Our reading specialist administered the Gates-MacGinitie Reading Diagnostic Test for additional information about each child's reading ability.

   We carefully read through permanent record folders to survey individual progress, materials used, and skills taught.

   After collecting this data, we met to divide the forty-three third graders into groups with similar needs. We had six levels represented: Primer, 1-1, 1-2, 2-1, 2-2, and 3-1.

   We sent a letter to parents explaining what we were planning to do. We invited them to come to school and visit our program.

5. How did we organize the children and teachers?

We debated splitting the ability levels between the two teachers so each would have both high and low. We decided, instead, to try three high levels and three low levels. In this way each teacher could do some whole group activities that would be appropriate for all. These groups later split into four high and four low, with some transferring of children.

We orginally thought we would switch groups midway through the semester. After nine weeks, however, we each felt we were just beginning to make good progress, and we decided that the end of the semester would be a better time to change. At the end of January, we traded groups and materials. We also reassigned children, making seven groups--three high and four low groups.

The various six, seven, or eight groups were color-coded for convenience. Each child had a pocket folder that matched his group color for convenient storage of papers and record-sheets.

The day's assignment for each group was listed on the board next to corresponding squares of colored tagboard. Example:

☐ See me. / Sheets / Centers

☐ Tape / Centers / See me.

☐ Centers / See me. / Workbook p. 27.

A paper-bailer was also color-coded so that daily assignments could be turned in and kept separately for the teacher to grade.

At reading time, each teacher lined up the children who were to switch rooms. We walked them over to the next room and returned with the other children. The process was reversed at the end of the reading time. It was so easy to say, "Will the red group please line up?" rather than try to name each child in the group. When children were re-assigned to new groups, they quickly identified with the new colors.

6. How did we organize the time?

Each reading block of time was approximately 75 minutes long. On Monday afternoons and on the other mornings we had 15 minutes of leeway time, if needed. Our 75 minute time block was organized into three sections for each group: 20 minutes of teacher instruction, 20 minutes of independent work, and 20 minutes of center time. Extra time was available for free reading.

The teacher-instruction time included introduction of vocabulary, oral reading, discussion, introduction and practice of skills, and initiation of units.

Independent work included SRA Power Builders, practice worksheets, silent reading in preparation for discussion, workbooks, taped stories for listening skills or for use with the neurological impress method, and writing original stories.

Several types of learning centers were usually available for selection. Activities in these centers extended and enhanced language development or reinforced other units of study. Both of us like using learning centers, and we developed many of them in our rooms by using carpet remnants, tables, and single desks.

For each center the teacher decided how many children could work there effectively--one, two, three, or four. That number of "tickets" was placed in a pocket on the Centers Chart. Each child had to have a ticket in order to go to a center. If there were no tickets in the pocket on the Centers Chart, he knew to make another choice. Each child was responsible for cleaning up the center and for returning the ticket to the Centers Chart when he was finished.

7. When do we plan?

Both of us plan by the week. We meet each Friday and discuss the schedule for the next week. On Sundays we usually telephone and review plans.

In the fall we arranged a common physical education time for our two classes. During this 25 minute period we met in the lounge to discuss progress and problems. We made suggestions for needs, communicated observations and concerns, and planned strategies for dealing with specific children.

8. How do we communicate daily progress?

After papers and workbooks are graded and reviewed with the children in our groups, they are given to the homeroom teacher to review. This is done daily; so problem areas are discussed immediately.

9. How do we evaluate and keep records?

We keep our own records of daily achievement. We devised a checklist of skills, and one of these is filled out for each child in our reading groups. These sheets are passed to each other for use during parent-teacher conferences and for making out semester reports. For each skill on the checklist, we use

one of these symbols:

+ very good √ average — needs improvement

Ample room is available for comments.

During conferences we both meet with parents if we feel the need or if parents request.

10. Can special education students be mainstreamed in a teaming situation?

Yes! By pooling our knowledge, materials, and time we are better able to provide instruction for a wide range of abilities. Instead of duplicating efforts to locate manipulative materials for a few children, one teacher can concentrate her time and energies on this.

Presently, we have eight students who are mainstreamed in varying degrees. One girl who qualifies for special education placement is assigned to us by parental request. She functions in the lower reading and math groups, and she also spends 75 minutes a day in the special education classroom for individual help. She participates in all other activities, either independently or with a partner.

Two children who are assigned to the special education classroom join us for physical education and center activities.

Four boys in our rooms see the learning disabilities teacher thirty minutes a day for prescribed activities.

Another example of mainstreaming is a first-grader who comes to our rooms for reading each day. He works with our top group!

11. What are the program's drawbacks and areas for improvement?

a. While whole group activities may be easier if the high groups are together and the low groups are together, some teachers may become discouraged when little or no progress is evident in the low-ability groups.

b. This arrangement also limits effective use of peer teaching.

c. More planning is involved. It is more difficult to plan for substitute teachers because of the commitment to teaming.

d. Because of the interruptions (special reading, speech therapy, motor development, testing, etc.), it is difficult to arrange make-up time for children in the other homeroom. We hope to schedule a study period next year so we can meet more easily with individuals for make-up instruction and conferences.

e. We have not yet worked on parent involvement. Parents could help make materials for learning centers and work with individual children for practice of skills.

f. We need more supplementary materials.

12. What are the strengths of our program?

a. All forty-three children make a cohesive group. They make friends with children in both homerooms.

b. All of the third graders relate well to both teachers.

c. The movement between rooms gives the children a change of pace and scenery.

d. The exchange of children keeps the teachers stimulated.

e. We are pleased with the support we give to each other. We learn from each other's strengths.

f. We have the satisfaction of knowing that all of the children are receiving more appropriate instruction than we could give them in a self-contained classroom.

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MATHEMATICS, THE REAL WORLD, AND LANGUAGE

Walter J. Sanders

Which of the following are correct ways to read "5-2"?

(a) 5 take away 2
(b) 5 give away 2
(c) 5 remove 2
(d) 2 less than 5
(e) 5 subtract 2
(f) 5 minus 2
(g) 5 compared with 2

Before we discuss the above question, let us consider the "story" problems below in Figure 1. The arrows show that to solve a real world "story" problem, one draws on the mathematics he knows and then "fits" it to the real world problem.

	REAL WORLD	MATHEMATICS	REAL WORLD
1.	Billy has 5 marbles. Sam takes 2 of them. How many are left?	5-2=3	He has 3 marbles left.
2.	Billy has 5 marbles. He gives Sam 2 of them. How many are left?	5-2=3	He has 3 marbles left.
3.	Sally has 5 candies. 2 are green. The rest are red. How many are red?	5-2=3	There are 3 red candies
4.	Mary is 5. Ruth is 2. How much older is Mary?	5-2=3	Mary is 3 years older than Ruth.

Figure 1. Types of story problems solved by subtraction.

Problem 1 is a take away story, but Problem 2 is not a take away story. It is a give away story. Who would argue that taking and giving are the same? In fact, take and give are antonyms. There is something

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common to both stories, though. In both cases marbles are removed from the original set. And in both cases the arithmetic 5-2=3 can be used to find the solution to the story. When children understand the removal aspect common to both cases they can solve either kind of problem.

In Problem 3 nothing is removed; so it is neither a take away nor a give away situation. In this case, the objects of one large group are considered to be separated into two groups (that is, the original set is partitioned into two subsets). The arithmetic, however, is the same. Teachers can help children see that subtraction can be used in this case by imagining that the green candies have been removed, or by covering them up to suggest removal.

In Problem 4 nothing is removed, nor are the objects of one group separated into two groups. This time two given groups are being compared. But, again, the arithmetic is the same. This use of subtraction (comparison) is the most difficult for children to grasp, and is usually left for the work of second grade.

As a child learns more arithmetic, he can use that arithmetic to solve more problems. Thus, when a child learns an algorithm for subtracting large numbers, he can solve the following problem:

> Billy has 75 marbles. Sam takes 32 of them. How many are left?

This is identical to the first story problem in Figure 1 except that the numbers are larger. Each of the other problems of Figure 1 can be changed similarly.

So, we have the following quite different story situations, all solved by the same arithmetic, 5-2=3:

1. Removal: transfer to another place
   a) take away
   b) give away
2. Separation: detatched from the whole, disconnected

   Partition: to think of the whole as made up of parts
3. Comparison: an estimate of resemblances and differences

Here we have exposed the essence of mathematics: each bit of mathematics is related to several different situations and can be used to solve problems in each context, but the mathematics is not, itself, any one of them. This, in fact, is why arithmetic is so useful. It is not tied down or limited by any specific real situation; so it can be utilized in a wide variety of situations.

One cannot truthfully claim to be involved in mathematics until he sees this distinction between the real world and mathematics. Then and only then does its full utility become available. To help keep mathematics and the real world separated, special mathematics vocabulary is used. Different real world situations have their own vocabularies for the same reason. Thus, in removal situations, it is natural to ask "How many are left?" or "How many remain?" and in comparison situations one uses words like "older" or "taller" or "colder." These words do not occur in an arithmetic sentence such as "5-2=3."

The language and vocabulary for each story in Figure 1 is that which is appropriate for the situation. The arithmetic does not include any of this special language. And the arithmetic is the same for all the problems. The answers are similar in language and vocabulary to the original real world problems.

The following words with their definitions pertain to mathematics, not to real world contexts:

1. Minus: pronunciation of the sign "-"

2. Subtraction: the arithmetic operation abstracted from "take away"

3. Subtract: a computing process or directions to find subtraction answers

4. Computing: "figuring with numbers"; using one or more algorithms to find a numerical answer; reckoning

When we now evaluate the suggested ways to read "5-2" at the beginning of this article we see that only (e) 5 subtract 2 and (f) 5 minus 2 use the vocabulary of mathematics and thus are the only correct choices. Of the two, "five minus two" is preferred.

You should be able to separate the mathematics terms from the applications terms in the following examples, giving correct readings for each mathematics sentence or expression.

$6+4$	$2/3 \times 5/7$	$2<5$
add	product	2 is shorter than 5
put together	repeated addition	2 is colder than 5
sum	times	2 is less than 5
plus	of	2 is fewer than 5
join end to end	multiplied by	2 is younger than 5
and	by	
	branching	

Everyone says that mathematics is abstract. But what does that mean? An abstraction is the process of drawing out from many different situations that which is common to them, disregarding irrelevancies. Thus, a child learns what a table is by being shown many different tables and by abstracting those properties which are relevant, such as a flat top, legs, etc. and by ignoring properties which are not relevant, such as the color, the material it is made from, etc. When the child looks at a table he has never seen before and recognizes it as a table, he has the concept of "table." This extension to new objects or situations is called generalization. Most of what children are to learn in mathematics involves this abstraction-generalization procedure. In the case of subtraction, a child manipulates objects in take away situations until he abstracts the essence of the number relations that hold. Then he generalizes this to whatever objects might be involved and comes to realize that a truth such as "5-2=3" stands alone without any objects under consideration.

He still has to see that subtraction is also an abstraction of separation and of comparison. He does this by working through specific examples until he sees that the subtraction he learned from take away situations has the same number relations as the new problems.

Why all the fuss about correct language? Does it really matter whether or not a teacher uses these words correctly? It seems appropriate for a teacher to set an example of correctness for her pupils. We insist on correct spelling, capitalization, and syntax when their misuse offends our taste even though such misuse may not create communication difficulties. We should be equally concerned with any violation of correctness that leads to misconceptions and lack of success in mathematics. Because we do not ordinarily use mathematics words correctly, many children have great difficulty dealing with applications of arithmetic. Finally, one doesn't really appreciate mathematics unless he distinguishes between mathematics and reality.

What can you do in teaching your classes to clarify these distinctions? Strive to be a model of correctness, demanding an appropriate degree of correctness from your students as they grow and develop. If you are removing an object from a group, use the words "take away." If you are reading "6-2," say "6 minus 2" and refer to it as a subtraction. If a child asks why 6 minus 2 is 4, show him that when two objects are taken from six objects, 4 remain. Ask questions such as "How do you know that six minus two is four?" Do not demand exact language from your students unless they can handle it. But set a good example.

Remember, taking away is not mathematics; it is readiness for subtraction. It is what a child does to help him learn the mathematics. Mathematics is abstract; it is not physical manipulations.

In summary, a child experiences a variety of situations, each with its own proper language and vocabulary, and abstracts the mathematics from them all. The mathematics abstractions have their own vocabulary

so that the distinctions between the abstract and the real can be readily maintained. These distinctions are an important aid to placing the mathematics in proper perspective so that applications can be dealt with successfully. Knowing the precise meanings of words promotes a deeper grasp of any topic, especially mathematics.

Speakers Marian Rutledge, Walter Sanders, and Margaret Liebermann

READING AROUND THE WORLD*

Malcolm P. Douglass

It comes as a surprise to most Americans that READING is not viewed with anywhere near the alarm or concern, or as a problem, outside our borders as it is here in the United States. World illiteracy is, of course, a most serious and vexing problem. It is estimated that about three fourths of the world's population is illiterate. This means that about three billion of the earth's people can neither read nor write. And while the illiteracy rate (the percent of the total world population of approximately four and a quarter billion individuals) is declining, albeit slowly, the actual number of illiterate people is growing worldwide, simply because efforts to teach literacy skills are being outstripped by an exploding birth rate. But among those countries which can reasonably expect to achieve universal literacy because they have the necessary resources to reach such a goal, none has the incidence of initial or subsequent reading difficulty that plagues the United States of America.

The reason that READING is not viewed as a problem is that relatively little difficulty is actually encountered in teaching children to read print in other countries. That there is a difference in their experience and ours is, in my judgment, real and not illusory. In Norway, for example, after a period of intensive study, I found that only about four to five percent of the children in the first class (or grade, in American parlance) might be expected to have some initial difficulty in learning to read. By the time children are nine or ten, the number continuing to experience reading problems has been reduced to about one percent. Similar experiences are reported from Sweden. I have been told on good authority that the Finnish experience is somewhat better, the Danish slightly worse, but in Scandinavia learning to read all adds up to no serious problem, and it is seen as such both by professionals and the public alike. Similar kinds of experiences are to be found elsewhere in Europe and in Asia and in fact generally throughout the world where the expectation is that everyone can and will learn to read. Because of the elitist nature of public education in these countries, the children may not be allowed to continue their formal education as long as they might in the United States, and so they drop out or are forced out and in the process are denied the fullest development of this skill. But the important point is that the beginning is not fraught with the problems we experience in this country. And that is true regardless of the language native to a particular group of people.

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I began to study in a fairly systematic fashion the experience of other countries a number of years ago because I felt that insights might be gained into our own complex problems by looking at the contrasting experience of others. I should hasten to say, however, that one should be extremely wary of the meanings which such contrasting experiences may have for us. Certainly, we should know better than to think that practices, or goals and objectives, can be transferred directly from one culture to another. Nonetheless, such analyses may help us better see the larger picture, for the problem of reading is indeed a complex one and we may do ourselves a disservice if we fail to balance properly all of the factors that are critical to success in teaching and learning this most basic of abilities.

Common Characteristics About Reading Teaching Around the World

I want to mention here three common characteristics of reading instruction around the world which contrast sharply with the American experience and which I think are critical elements in the successes which are achieved. The first is that children generally commence whatever formal instruction they do receive at a later date than do children in the United States. The modal age for beginning formal schooling around the world is seven. Although there are striking exceptions to this (e.g., in France children generally begin school at three and in Britain, at five), the usual age for beginning is seven. And while a number of countries provide nursery school experiences for many children (as it is in Scandinavia and the U.S.S.R.), these institutions by and large pointedly ignore or are otherwise bound by regulation not to provide any formal instruction. This age has not been determined by any scientific means but rather by tradition--although more objective evidence seems to support this policy. Over the years, experience has told numerous societies that seven is an efficacious time to begin; it has told them that most children can handle the kind of instruction which is provided in the formal educational structure when they are seven and generally not before. (It is perhaps interesting to note that in some African countries, where birth records are inadequate and chronological age is difficult to determine, children who can reach over their head and touch the top of their ear are judged to be about seven and ready for school--a seven year developmental task?)

A second common characteristic is that, at least in those countries where formal instruction in reading is provided, teaching is dominated by formal instructional methods. All children in a class frequently are taught the same thing at the same time. READING itself is taught as a series of lessons, most frequently based on what we would term a "synthetic" or phonics approach. But it is taught only briefly, at least by our standards, since, by and large, much less time is devoted to formal instruction in READING no matter how you count it. In other words, less time is devoted to it on any given day or week and it is certainly not taught as long in terms of years of instruction.

Third characteristic, then, is that formal teaching of reading not only does not extend over such a long period of time, it is not even a universal fact of life in schools around the world. Whereas we in the United States provide for the teaching of reading at least through the sixth grade, and not infrequently into the secondary school and even at the college level, other countries seldom if ever exceed three years. It is probably more accurate to say that children are taught directly only to the point of independence in reading simple materials. After that, READING skill is developed through the study of literature and through the practice provided as part of study in the other content areas of the curriculum. It is consequently difficult to determine at what point formal reading instruction ceases. It is probably safe to say that, in those countries where such instruction is provided, many do so for only one year.

At the same time, many children are expected to learn to read before entering school. In a number of Asian countries, e.g., Korea and Japan as well as Vietnam, the child either learns at home or is sent to a tutor. The expectation is that he will be able to read simple materials independently upon entry into the formal educational system, and it is not up to the school to see that this occurs. A variation on this policy is found in the schools of the U.S.S.R., if my observations there are correct. I was advised that Soviet children are expected to learn either at home (primarily through the ministrations of the babushka, or grandmother) or in the preschool where the last few months of attendance include teaching sufficient to develop independence in reading simple materials. If neither happens, the child is placed in what one principal called a "zero class" where reading was taught and from which the child would be enrolled in the regular classroom program upon learning to read.

Although not of central concern, it is perhaps worth noting that other countries reflect their lack of anxiety over READING by not having jobs held by people who specialize in reading. "Reading consultants," special credentials attesting to one's expertise are nonexistent, as are "professors of reading." Rare is the Reading Conference, an increasingly common event here in the United States. Nor do teachers join organizations which publish journals on the subject or attend meetings at which READING is the one and only subject of the day. Indeed, when one attends a conference on READING held in some exotic land, it is more like a transplanted American conference since most of attendants are usually from the U.S.A. And in fact, America's fetish over READING seems to be the source of whatever concern one may find in other lands; our interest is beginning to find a few kindred spirits, in other words, but it has none of the hell-fire and brimstone enthusiasm which we know in this country.

Why Me? Or Us?

Whenever the differences between the American experience and that of other countries is pointed out, the argument is invariably put forth that English is somehow a language cursed, that it is highly irregular and

therefore unpredictable, that its orthography doesn't match the phonetic aspects of the spoken language, and that it is little wonder we have so many problems with it. And at first glance, it does indeed appear to be all of these things, perhaps more. One might begin to wonder at the truth of this assertion, however, if for no other reason than the fact English is rapidly becoming the international language. English serves as a second language, and the tie that binds, in an increasing number of countries around the world. If it were so difficult of mastery, it is doubtful this would ever have come about. Nor would the very strong trend continue as it is, and so in this connection I should like to discuss two of the more commonly ascribed reasons for this nonproblem of the curse of English, and indicate why I have reservations about their validity.

On the predictability/unpredictability of English.

One needs to look beyond the evident surface features of a language in resolving the claim that we have, or have not at hand a particularly apt example, in English orthography and phonology, of a demonic linguistic horror story. The work of two groups of scholars may perhaps help us clarify the significance of what admittedly on the surface of it looks like a highly irregular assortment of words which make up the English lexicon. The first group is comprised of linguists, particularly those who might be called transformational grammarians. In their studies of the origins of various word forms they have concluded that there are far fewer true exceptions or special cases than we have previously thought and that there are instead good reasons why words are pronounced as they are (as in the shift that occurs between "courage" and "courageous," for example). In developing oral language abilities, it appears that native speakers achieve a kind of meta-awareness, a level of understanding which is not stated verbally but which is functionally available to each speaker quite early on, of the rules or generalizations governing such oddments, at least on the surface, as the example given. While we do not really know how a person learns his first language (let alone how he learns a second or third one), we might speculate that since language production is rule-governed, the speaker senses these rules and in the sensing is able to very rapidly use them in developing oral language abilities. Certainly if each or even many words were the exceptions they have been touted to be, it would not be possible to teach for so many exceptions. Something else must be functioning here. And while there is conflict and disagreement as to just what is happening, oral language development cannot be explained as a simple accretionary process in which each added word in one's vocabulary gets there through imitation and simple association.

The second group of scholars is the psycho-linguists who have actually plotted the course of language acquisition itself. Among their many findings, I should want to emphasize the evidence now available to us in cross-cultural settings. It is now quite clear that children around the world learn their first or native language in similar but never identical patterns. Speakers of English learn as rapidly and as completely as children for whom another language is the native one.

If English were somehow more difficult to acquire, then would it not be logical to expect slower growth toward competence? And since the verbal language functions of reading, writing, speaking, and listening are demonstrably interrelated, why would one expect normal growth in one aspect and abnormal growth in another?

On the adequacy/inadequacy of English orthography.

For almost 200 years various attempts have been made to achieve what appears to be a more adequate match between the oral language and phonetic sounds of English and the print which we use to represent it. Even George Bernard Shaw became swept up in efforts to reform the orthographic system, spending many hours as well as pounds sterling toward that end. That these systems have come and gone seems not to stand as a warning to the next generation of these grapho-inventors. Surely that must tell us something. As should the fact that over these many years the English language has been rendered into print in different ways. It is only too obvious that the orthography of the 1700s, for instance, is in many ways substantially different from modern type, and it is also not particularly easy to read by today's novice, although a little practice soon makes perfect.

But we can turn to current examples to illustrate the fact that modern languages are rendered in print in almost an infinite array of what appear to the uninitiated as unique sets of squiggles and flourishes. The Cyrillic alphabet contrasts sharply with the flowing lines of Arabic notation or that of Sanskrit. The left to right, top to bottom, front to back arrangement employed in reading English contrasts sharply with other languages which employ a top or bottom arrangement instead of a left to right one, or a "back to front" overall format as in the case of Arabic printing. And then of course there are symbols which represent something not used in English at all, such as those used in a number of Southeast Asian countries to represent inflections, so important are they in determining meanings. What we see, then, is an almost infinite array of different ways for representing language in its printed or written form. Indeed, the manner in which any particular language (including English) is rendered in "cursive" or handwriting is very different from its "manuscript" or printed form--a matter to which we teachers have paid relatively little attention. That children who successfully master the reading of writing in manuscript or traditional print never encounter difficulties in reading or writing it in cursive form seems not to have occurred to us. How is it that a child can so easily master another set of symbols? How is it the child masters one or another of the many ways oral languages are rendered in print? Can it be true that there is one which is inherently so different, and consequently difficult that troubles are bound to arise therefrom?

Noam Chomsky, the distinguished linguist and "bad boy" in traditional linguistic, educational, and psychological camps, has had the temerity to say that English orthography is a "near perfect" means for rendering language into print. To him, the symbol system which has evolved over

the centuries is not simply adequate, it is finely tuned to the task it serves to perform. It is widely recognized that Chomsky has made basic contributions to the development of linguistic theory, and whether or not he is completely accurate with his assertions regarding English orthography, we would probably be wise to entertain the possibility that his analysis is somewhere near the point rather than rejecting it outright. My own view is obviously that the particular configuration of the orthographic representation in any particular language is relatively unimportant; any systematically derived representation (as is the case for any language) can be mastered easily and quickly. Evidence that this is so abounds wherever languages are spoken and written down. There is consequently no reason to assume that English is any more difficult of mastery than Arabic, Greek, Russian (Cyrillic), or Sanskrit. And so when we identify our literacy problem as being derived, at least in part, from this source, I believe the evidence from cross-cultural studies of language behavior belie it.

Beyond the "Curse" of English

If one looks beyond the "curse" of English, it becomes quickly evident that factors are at work other than those we popularly blame as we try to invoke reading behavior in children. In other words, factors such as the particular orthographic features or the special peculiarities of the language have very little if anything at all to do with the problems of learning to read which we see in our classrooms. Rather, the fundamental issues have to do with the values and other cultural factors that are so deeply ingrained in any society, and the "match" of these among teachers, parents, and children. These have to do with attitudes and feelings about reading, about the ways a society uses its leisure time, about what is expected of its young. In the countries I have visited (and in talking with students from many different lands), it is evident that there is a universal expectation that children will learn to read. There is, perhaps, a self-fulfilling prophecy at work in this regard. If one expects success, success may be already within one's grasp. If we expect failure . . . . And on most other counts there is not the conflict which, so far, seems endemic in a pluralistic society such as ours.

One element which is most striking as one observes different societies as they seek to educate their young is that most are relatively homogeneous when compared to the United States. That is, the school and the home share common values. Parents, children, and teachers have compatible interests. The conflict in values which is present in a pluralistic society, especially as those conflicts are represented in different languages (the dominant ones in the U.S.A. being Spanish and Black English, although there are others within smaller regions of the country), in many ways has been avoided. This is not true in the U.S.S.R., of course, which is also a multi-cultural society. There, it is interesting to note, schools are conducted in both Russian and in the native language of the particular "state" within the Soviet Union; parents may elect to send their child to one or the other. If the youngster goes to school where the instruction is carried out in a language other than Russian, they will of course be taught Russian as a second language (and frequently

English as a third language). It may be relevant to point out, as well, that in a number of European countries where foreign workers have been imported, and who now are not returning to their native country but settling down in the newly adopted home state, reading and writing problems are for the first time beginning to emerge. Similarly, in countries such as Korea where western cultures have invaded cities at the expense of the traditional values of the countryside, cultural conflicts are arising and they are beginning as well to experience problems with learning to read.

Finally, among the many elements which impinge upon the classroom, but which have little if anything to do with how reading is taught, I must return to the matter of age and instruction. Seven is a watershed year in human growth and development, and the vast majority of countries around the world observe this in their traditional selection of seven as the year for beginning formal schooling. This I believe strongly enhances the possibility of success in beginning reading instruction, particularly where such instruction is quite formal, i.e., where READING is invoked rather than evoked.

Learning to Read: A Subtle Process

In any event, we can only conclude that learning to read is a very subtle process. We in this country are aware of the complexity of reading, or at least we are growing in our awareness of this fact. What we perhaps have not understood, and which cross-cultural analyses may point us toward, is that it is highly likely there are factors beyond the classroom door which are much more critical in determining whether READING will emerge in full flower or not in school-age children. We would of course all like there to be a royal road to READING. And we would like to have assurance, or at least faith, that teaching has a direct effect, i.e., that it results in the behavior we so mightily desire. There is reason to suspect this is not so, at least to the extent we would like to believe. Or we might say, at best, that our teaching is being strongly affected by factors within the society at large to which we should turn our attention if we are to achieve the objective which we so urgently seek.